

I. Amendments to the Specification:

Please replace paragraph [0327] with the following:

As with previously described converters, the converter **6801** has two circuits: a high side circuit having a transformer T1 primary winding, an auxiliary section (Q1 to Q4) and a resonant tank (L1, C1), and a rectifier circuit **6802** with Q5 to Q8, a transformer T1 secondary winding, and L2 and C_{out}, forming a full-bridge rectifier circuit **6802**.

Please replace paragraph [0330] with the following:

Referring to FIG. 69, an alternate full-bridge parallel resonant converter 6901 is shown. Its high side circuit is the same as the topology shown in FIG. 68B, but the rectifier circuit is changed from a full-bridge rectifier in FIG. 68B to a current doubler 6902. The current doubler 6902 has two MOSFETs (Q5, Q6), two output inductors (L2, L3), and one secondary winding of the transformer T1 ~~and an output capacitor (C_{out})~~.

Please replace paragraph [0332] with the following:

Referring to FIG. 70, a further alternate full-bridge parallel resonant converter 7001 is shown. Its high side is the same as the topology shown in FIG. 68B, but the rectifier circuit is changed from a full-bridge rectifier in FIG. 68B to a center tapped transformer rectifier 7002. The center tapped transformer rectifier 7002 has two MOSFETs (Q5, Q6), one output inductor (L2), and two secondary windings of the transformer T1, ~~and an output capacitor (C_{out})~~.

Please replace paragraph [0334] with the following:

Referring to FIG. 71, a further alternate full-bridge parallel resonant converter 7101 is shown. Its high side circuit is the same as the topology shown in FIG. 68B, but the

rectifier circuit is changed from a full-bridge rectifier in FIG. 68B to a phase control rectifier 7102. The phase control rectifier 7102 consists of four MOSFETs (Q5 to Q8), three diodes (D1 to D3), three inductors (L2, L3 and L4), and one secondary winding of the transformer T1, ~~and an output capacitor (Cout).~~

Please replace paragraph [0336] with the following:

Those skilled in the art will appreciate that all full-bridge rectifier circuits in converters 9601 may use phase control to regulate the output voltage provided that bi-directional voltage switches are used in at least the top side (for example Q5, Q6 of FIG. 71) or bottom side (for example Q7, Q8 of FIG. 72[[1]]) of the rectifier circuit. In the converters of FIGS. 71, 75, 79, 85, 89 and 93 bidirectional voltage switches are provided by MOSFETs in series with blocking diodes (for example Q5, Q6 and D1, D2 of FIG. 71) to block reverse voltage. If IGBT switches are used then the blocking diodes could also be used. GTO switches are themselves bidirectional and blocking diodes would not be necessary. Phase control may be used alone or in combination with switching frequency control and/or phase shift control (where applicable).

Please replace paragraph [0337] with the following:

It is noted that inductors L2[[3]], L3[[4]] are used to reduce the switching loss of Q5, Q6 by filtering the waveform on the rectifier circuit 7102 to a quasi-sinusoidal waveform. If the inductors L2[[3]], L3[[4]] are not used then the circuit 7102 will operate; however, the switching losses for Q5, Q6 will be increased.

Please replace paragraph [0355] with the following:

The converter 8001 has two circuits, a primary high side circuit and a secondary rectifier

circuit. ~~[[A]]~~ The high side circuit has a primary winding of transformer T1, an auxiliary section (Q1 to Q4) and a resonant tank (L1, C1); while Q5 to Q8, and the transformer T1 secondary winding ~~and Cout~~ form a full-bridge rectifier circuit 8002.

Please replace paragraph [0361] with the following:

The converter 8201 has two circuits, a high side circuit and a rectifier circuit. ~~[[High]]~~
The high side circuit has the primary winding of transformer T1, an auxiliary section (Q1 ~~[[to]]~~ and Q2 and two voltage divider capacitors—C2 and C3) and a resonant tank (L1, C1); while Q3 to Q6, transformer T1 secondary winding, and ~~L2 and Cout~~ form the full-bridge rectifier circuit 8202.

Please replace paragraph [0363] with the following:

Referring to FIG. 83, a further alternate half-bridge parallel resonant converter 8301 is shown. Its high side circuit is the same as the topology shown in FIG. 82, but the rectifier circuit is changed from full-bridge rectifier in FIG. 82 to current doubler 8302. The current doubler 8302 has two MOSFETs (Q3 and Q4), two output inductors (L2 and L3), and the secondary winding of the transformer T1, ~~and an output capacitor (Cout).~~

Please replace paragraph [0365] with the following:

Referring to FIG. 84, a further alternate half-bridge parallel resonant converter 8401 is shown. Its high side circuit is the same as the topology shown in FIG. 82, but the rectifier circuit is changed from a full-bridge rectifier in FIG. 82 to a center tapped transformer rectifier 8402. The center tapped transformer rectifier 8402 has two MOSFETs (Q3 and Q4), one output inductor (L2), and two secondary windings of the transformer T1 ~~and an output capacitor (Cout).~~

Please replace paragraph [0367] with the following:

Referring to FIG. 85, a half-bridge parallel resonant converter 8501 is shown. Its high side circuit is the same as the topology shown in FIG. 82, but the rectifier circuit is changed from a full-bridge rectifier in FIG. 82 to a phase control rectifier 8502. The phase control rectifier 8502 has four MOSFETs (Q3 to Q6), three diodes (D1 to D3), three inductors (L2 L3 and L4), and one secondary winding of the transformer T1 ~~and an output capacitor (Cout).~~

Please replace paragraph [0386] with the following:

The converter **9401** has two circuits, a high side circuit and a rectifier circuit. The high side circuit has the primary winding of transformer T1, an auxiliary section (Q1 and Q2 and two voltage divider capacitors C2 and C3) and a resonant tank (L1, C1); while Q3 to Q6~~[[,]]~~ and transformer T1 secondary winding ~~and Cout~~ form the full-bridge rectifier circuit **9402**.

Please replace paragraph [0390] with the following:

The converter **9501** has two circuits, a high side circuit and a rectifier circuit. The high side circuit has the primary winding of transformer T1, an auxiliary section (Q1 ~~[[to]]~~ and Q2 ~~[[,]]~~ and two voltage divider capacitors C2 and C3) and a resonant tank (L1, C1); while Q3 and Q4~~[[,]]~~ and transformer T1 secondary winding ~~and Cout~~ form the center tapped transformer rectifier circuit.